

CAPTAIN G. W. NASS, LUNENBURG, N. S.

MAY 30, 1895.

Interviewed by Wm. Wakeham and R. Rathbun  
(long hand).

35 years' experience in fishing, cod and mackerel. 4 years purse seining. Has not done much the past 3 or 4 years, but has water boat here, and interests about town. Also 1 mackerel trap net in bay.

The first run, which are the large mackerel, comes on between May 16 and the last of the month. It continues a fortnight, sometimes 3 weeks. When they strike on at the western end of Nova Scotia they are longer (last longer) in passing here than if they strike on the outer shore, nearer this place. This run has now been on here this year about a week. This year the mackerel have been very large, 17 or 18 inches; they generally range from 14 to 16 or 17 inches in the first run.

Last year (1894) the mackerel of the first run came right into the harbors about here. The only time they do so is when they butt right on the shore here. When they come from

the western end of the province they stay farther off shore. In 1894 the first run struck directly into the outer shore, all along from Yarmouth to Ingish at about the same time; and came into the bays.

In fishing for the first run with gill nets they generally set from 5 to 10 miles off shore. The purse seiners operate from 3 to 7 or 10 miles off.

The second run last year came on top of the first run, and the two were practically continuous. The time between the two runs varies; they expect several days and it may be more than a week.

The second run lasts anywhere from 1 to 3 weeks. Generally commences about June 20 to 22, and lasts into July. There is much variation. The general size of the fish is about 11 to 13 inches, with odd big ones among them. This run has usually come into the bays, but some years they miss. Chester Bay used to be a great place for them.

The second run comes down along the land close in, generally. That is when they are

separated from the first run. In the spring of 1894 they kept off as the big ones did. Do not generally find this run far off shore. The bulk are inside of 5 miles off.

The summer mackerel are uncertain. There used to be a run in August, but has not been the past few years. Size generally 11 to 12 inches, but may be much smaller. Cannot count on the summer mackerel about here. They come on unawares. Thinks they come in from sea. Chester and Marguerette Bays are the principal ones which they enter about here. The total quantity of summer mackerel caught along this part of the coast is not very great, except in odd years, when they may come in abundantly. They depend upon the spring and fall runs for their largest catches.

The fall mackerel generally strike here (going west) about October 20. Are moving west and the length of their stay here varies. Generally ends about November 15, but some years will continue to December 1, and has known of some remaining until near Christmas. They do not move so fast in the fall as in the

spring.

The small mackerel leave the Gulf of St. Lawrence first in the fall and get them here first, the larger ones following.

In the fall there are lots of schools of young mackerel coming out of the Gulf and following along this coast. They are from 5 to 7 inches long, and he supposed they are of the same years hatching. They will come into the bays in immense quantities. The bays will become solid full some seasons. There are a plenty of these small ones in the Gulf in the fall in different places. (Dr. Wakeham says they are smaller there than the sizes given above).

Has never heard of any of the large pole traps east of Cape Sable, except as noted below (Capt. Pratt, of the Curlew) says there are none. In Chester Bay (Mahone Bay), there is one pole trap off the light house on Quaker Island. It was purchased at Yarmouth. Thinks there is also another such trap in the same bay. These traps would be set for the

second and summer runs of mackerel. Knows of no other pole traps between Chester and Canso.

There are no floating traps between Cape Sable and Lunenburg, unless there may be one at Liverpool. Pratt says there are none. They are used in Lunenburg Harbor (28), Chester Bay, and Margeurette Bay (2). Does not know of any such traps being used between the latter bay and Canso, but in some places they will set their seines something like a trap. Around the east end of Nova Scotia (Canso, etc.) there are a good many of the floating traps, set chiefly for bait.

15 years ago there was only an odd floating trap on this shore; now there are many. They are set to catch all kinds of fish, generally for bait. They take mackerel, herring, squid, etc.

Generally set them here for the second run of mackerel, but last year (1894) and this they were set for the first. In 1894, they were successful as the first run came up in the bays, but this year they have not been. About Lunenburg they are taken out the last of July

or first of August, and are not put back again the same year. 2 or 3, however, were set last fall.

The floating traps are of two kinds, with and without bottoms. The latter are called seine traps and are the most numerous. The seine or webbing here ranges from 73 to 110 fathoms long, but in Margeurette Bay they have longer. The seine is bent into the shape shown in Fig. 1. The foot of the seine rests upon the bottom. There are floats at the upper margin, and anchors or weights at the foot. The leader connects with one side of the mouth.

The mackerel entering the bays come up the middle, and go out along the east or west sides according as they are moving east or west outside. That is in the spring they would pass out along the east side, and in the fall along the west side. The leader is placed on the proper side of the mouth to meet these conditions.

The depth of the seine must be sufficient

to cover the rise and fall of the tide which is only about 6 or 7 feet, ordinarily.

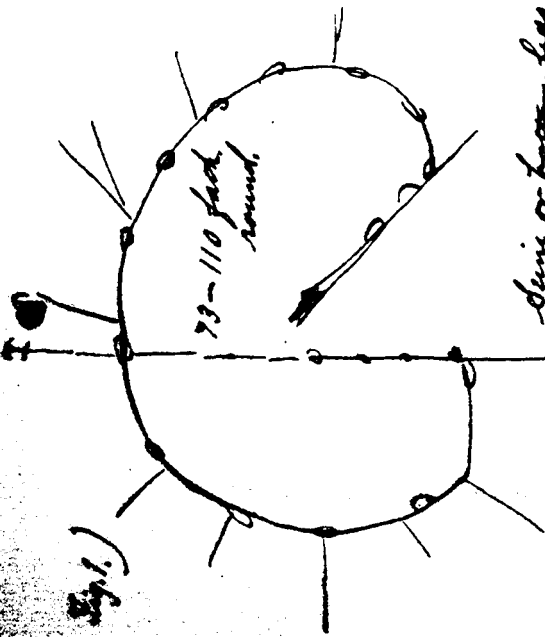
The traps with bottoms are made in two ways as indicated by figures 2 and 3. Fig. 2 is sharp at the inner angles, fig. 3 square, the latter being supposed to hold the fish best. The bowl is about square, about 14 feet, or 63 fathoms around. The leader comes into the middle of the mouth. There are floats, anchors and stays. The leaders do not come up on the shore, at least not in all cases. The bottom rests upon the bottom, which is all muddy about here where they are set, the same being true of the localities of the seine traps.

The mesh in the bottom of these traps is 2 inches, sides of bowl,  $1 \frac{7}{8}$  inches, leader  $2 \frac{1}{2}$  to 3 inches. The mesh is about the same in the seine traps.

Do more fishing with gill nets for mackerel and other kinds of fish than with any other kind of apparatus along the coast from Cape Sable to Cape North.

The principal places for gill netting are

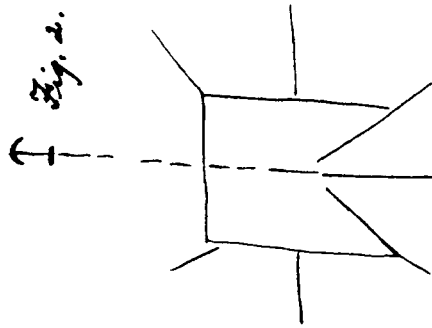
Fig. 1.



73-110 feet  
round.

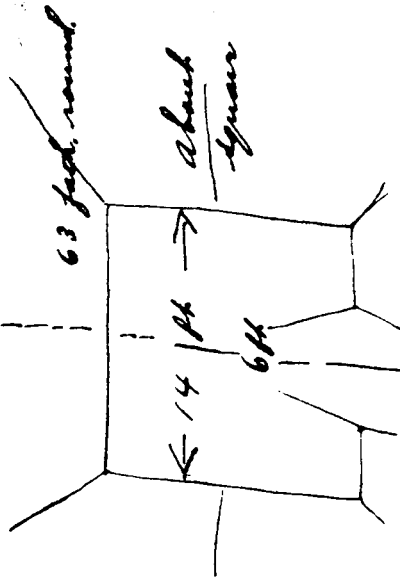
line or bottom. lies  
trap.

Fig. 2.



Same as  
Fig. 3.  
except  
lower  
angles

Fig. 3.



63 feet. round.

about  
square

14 ft

6 ft

Mesh-  
bottom, haul  
2 inches  
sides of haul  
1 7/8 in.  
Leader 2 1/2-3 in.

Croft's trap not  
is made like

Fig. 3.



from Cape Le Have to Sambro, in which region there is a very large number of such nets used. Use 5 to 22 nets to a boat. The average is probably about 10 to a boat. Only a few boats which have the larger number.

The size mesh in the nets used for the first spring run and the large fall run is from 3 to 3 1/4 inches. The mackerel this year were too large for that mesh and 3 1/2 inches might have been better. Mackerel in olden times used to run larger, and they used a 4 inch mesh for them.

For the second run of mackerel use 2 3/4 to 3 inch mesh, the same they use for herring.

The principal herring season here is about September 1, when they are spawning. Also have a July run.

Used to employ drag seines here. They went out of use as the traps came in. They have been used, however, within a few years. Not so convenient to use as traps, as they had to watch for the fish. Thinks the mackerel still come on shore so that they might use the seines if they desired to, but the traps are a

better method..

The drag seines measured 100 to 140 fathoms long, and 7 to 10 fathoms deep.

In some places they still use the drag seines as at Tancook Island. Thinks at Prospect it is all seining. Drag seines are employed between Liverpool and Halifax. Cannot say anything about the region farther east. In the fall they catch many mackerel with seines in Halifax Harbor.

The first run of mackerel seldom comes in close to the shore here, but the seines have been used from the middle of June to the end of November. In some places they make large seine catches.

The only fishermen he knows of who use hooks are from Tancook. They hook only in the fall, September and October. Their principal grounds are North East Shoal (north of Green Island), Bull Rock, Hobson's Nose and Refuse Island Shoal. The mackerel so taken belong to the summer or strawberry run which remain about the shores. At the time they are taken they seem to be playing about these

places.

(Mr. S. has seen them hooking at Liverpool Harbor).

Probably do more or less at different places in September, but Tancook is the principal seat of this fishery. They make a business of it there in the fall.

Only about a dozen purse seiners from Nova Scotia coast. They fish on the Nova Scotia coast and in the Gulf of St. Lawrence. There used to be some more, but it is not considered a profitable method of fishing, probably because much of it was begun in poor years.

His chief objection to purse seining is that it is not a sure way of catching mackerel.

The purse seines might scare the mackerel some, but thinks not much. It makes them wild. Doesn't tend to break up the schools. They will dive under the seine and the entire school come up together on the outside. They come right to the surface after diving under the seine, and then may possibly disappear. If after surrounding a school with the seine

you see a few come up on the outside of the seine, you may depend upon losing the entire school. It may make them wild, but does not break up the schools.

The mackerel do not seem to be as abundant on this shore as they used to be. There may be as many mackerel, but if so they keep off more. When he was a boy they used to swarm here. They began to keep off the shore many years ago (that is the appearance of a decrease).

Doesn't think that purse seines have had to do with the decrease about here. Not enough is done by the purse seiners to have produced any effect.

The big fish of the first school never came inshore any more than they do now..

Thinks that the number of persons engaged in the mackerel fishery and the amount of gear as a whole has caused the decrease or has caused the fish to keep off shore.

Lobstering has hurt the fisheries and the mackerel especially, because of the manner in which they occupy the inshore grounds, the

amount of gear, its constant handling, the stinking bait and the foul water caused by the same.

(Pleasant Bay, Magdalene Islands, is covered with lobster pots during the season. When lobstering is going on the mackerel and herring will not come in, but they do so after the close of the lobster season. Thinks the handling of the pots is more to blame than the fouling of the water---Wakeham).

Albacore feed on the mackerel.

The large mackerel going west in the fall are destroyed to a large extent by the squid. This is seen when they are taken in the nets. The squid will devour a large part of a mackerel at times, especially the more fleshy parts, but sometimes only makes bites into the flesh. The squid do a great deal of damage in this way.

(Cod oil is used for leather. The market is really over-stocked for cod oil, and the prices have become low---Wakeham).

Do not ship many fresh mackerel from here. They have poor facilities for so doing, in

reaching the American markets. It is only during the past 2 or 3 years that they have commenced to ship fresh. The most are salted and they are also used as bait. These remarks apply to the first and second as well as to subsequent runs.

Very seldom get any salmon in the traps in Lunenburg Bay. (As there is a fine for so taking them, they may not wish to tell the entire truth in regard to this matter). Salmon are caught very early in La Have River by means of nets. A Mr. Parks seems to do the most of this. This year (1895) he got his first salmon April 1. Last year his first one was taken March 25. These were probably taken about a mile up from the mouth of the river.

W. L. ZWICKER, AGENT FISHERIES INTELLIGENCE BUREAU, LUNENBURG, N. S., MAY 30, 1895.

Interviewed by Wm. Wakeham and R. Rathbun  
(long hand).

Records of dates of appearance of mackerel, Lunenburg, etc. Mr. Zwicker is interested in one of the traps in Lunenburg Bay which is referred to as his trap. All barrels mentioned at Lunenburg are salt barrels of 200 lbs., fish.

1892.

The first run or large mackerel were first taken in the gill nets here May 25, and lasted until June 11.

The second or strawberry run. His floating trap was put down June 3, Catches were made as follows:

June 20,	2	mackerel,
" 22	few	dozen mackerel,
" 23,	1	bbl. mackerel,
" 24,	34	bbls.
" 25,	2 3/4	"
" 26,	1	"
" 27,	2	"
" 29,	30	"

June 30, 1 bbl.

July 1, 6 "

" 4, 7 "

" 7, 1/2 "

This was the last taken this year.

There were no mackerel in August or September. He thinks the above school went west from here, as mackerel of the same size were subsequently taken at Liverpool. Mr. Zwicker considers that this second run is not going to the Gulf, but remains about here more or less into the summer. He calls it the summer or strawberry run, the last name being generally recognized about here. (The question of the movements of the second run in this region is somewhat difficult of solution here, and there seems to be a difference of opinion regarding it).

1893.

First or large run. A few were taken in the gill nets May 24, which were the first. They lasted until June 7.

Second run. Catch in his trap.



June 12,	1 mackerel,
" 14,	26 "
" 17,	8 bbls.
" 19,	25 "
" 23,	8 "
" 26,	15 <sup>3</sup> / <sub>4</sub> "
" 27,	13 <sup>3</sup> / <sub>4</sub> "

Thence up to July 11 had a few scattering mackerel only at each lift.

Large fall mackerel going west struck here October 20. Scattering ones will continue here generally to about November 20, sometimes later.

#### 1894.

First or large run. Henry Weaver put out his gill nets May 18. It stormed May 19. On the 21st he took about 150 mackerel. On the same date they were schooling right in the harbor here, and entered the coves, etc. They came into the bays in immense numbers that season. On May 28 the first were taken in traps, which had been set out for them. Only

a few traps had been set then, but on that date 50 salt barrels were taken in them.

Second run. June 13 took 35 mackerel, the first in his trap. June 21, 2 bbls.; 26th, 2 1/2 bbls. There was scarcely anything of a second run in 1894.

Fall run large mackerel. Set his trap October 19, on the shore at Oven's Head. October 26 took 6,500 large mackerel. Besides this about 1,000 same mackerel were taken in other traps, which was total catch of fall run in traps for 1894.

### 1895.

First or large run. Following is the catch made by the boat taking the greatest number each day, in gill nets, up to date.

May 21,	1	mackerel.
22,	12	"
25,	20	"
27,	70	"
29,	80	"

There have been about 25 gill net boats out. The others each took smaller quantities

daily.

In 1890 and 1891, there were immense quantities of 9 to 10 inch mackerel on this shore. The greatest number were present in 1890. That year they struck in the last of July and lasted until about the middle of September. They were so plentiful in Chester Bay that one hour after emptying a trap it would be full again. These fish were marketed as "small mackerel."

1890 had not been a good mackerel year up to that time, so that these small fish brought a good price in the United States market. They began at \$5.50 a barrel, salted, and went up to \$10.

They ran a seine across the mouth of Deep Cove, Chester Bay, and held in an immense quantity which they kept there as they dressed. Not knowing, however, that they would be of so much value they did not save all and let some go to waste. There were probably thousands of barrels penned in the cove at that time.

This year (1895) there are 28 traps in Lunenburg Bay, inside of Ovens Pt. and East

Point. The catch in these traps is mackerel, herring and squid, and occasionally a salmon.

GEORGE DORES, LUNENBURG, N. S.

MAY 30, 1895.

Interviewed by Wm. Wakeham and R. Rathbun  
(long hand).

His fishing experience dates back some 40 years. Has always lived about here. Has used seines and floating traps for mackerel. Has one of the latter now in Lunenburg Bay.

40 years ago they fished for mackerel only with seines, hooks and gills. At that time they had a dozen or so vessels which went hooking for mackerel in the Gulf.

There are 2 runs of fish here in the spring and summer. The first run, beginning in May, consists entirely of large fish. The second run is called the strawberry run. They may first appear any time between June 15 and July 15. If they consist of rather large fish, 12 or 13 inches, they would pass on from bay to bay, not remaining long at any place. If the run consists of small fish, 8 to 11 inches, they will stay longer in the bays, through August and more or less of September.

He said the smaller fish returning from

the Gulf pass here the latter part of August or early in September. (Probably confounded with the last above).

The large mackerel from the Gulf pass here the latter part of October and during November.

Very small mackerel, 5 to 6 inches long, and some smaller, come down from the Gulf in October. They do not do much more than to trim the shore. Keep passing along.

Mr. Dore and others have spoken of a "pilot mackerel," which is very rare, and comes with the mackerel; only an occasional one, and would be caught outside, none inside. About length of small medium mackerel, more slender body, narrower dark stripes.

The seines used now and formerly, 100 to 120 fathoms long, 6 to 8 fathoms deep. Mesh 1  $\frac{3}{4}$  inches in bunt, 2 inches in wings. Always hauled in by hand. Sometimes do not haul up on shore, but encircle the mackerel, and empty by means of a spiller seine.

There were 10 or 12 seines owned and used here when he began. They were mostly used in

Lunenburg Bay, but a few might go over into Chester Bay at times.

He gave up seine fishing in 1877, and began trap fishing. Has two traps, and on one of them uses a few poles on account of the current where it is set.

Saw mackerel plentier previous to than he has since 30 years ago. Within his experience they were most abundant in 1871. There has been nothing like it since. They were 13 inch summer mackerel, and struck the shore in August all at the same time. Did not have to look for them with their seines. They were inshore everywhere.

Doesn't know that the purse seines have decreased the mackerel. May frighten them and prevent them from trimming the shore. The first run of spring mackerel does not trim the shore west of here after rounding Cape Sable. Keep more off shore. Not as much fishing done west of here as about here and to the east.

Years ago they used to catch many mackerel with drag seines some years, and in places they do so now; but in other years they would do nothing.

HENRY WEAVER, LUNENBURG, N.S.

MAY 30, 1895.

Interviewed by Wm. Wakeham and R. Rathbun  
(long hand).

Has fished in this region about 48 years and is still fishing. One of the most energetic of the local fishermen. Now using gill nets and traps, and also hooks for cod, etc.

The big mackerel came in last year May 10, the earliest known, and lasted until about June 5. Generally do not begin until about May 21 to 25.

There was no second run last year (1894), but the big ones held on until toward the last of June, smaller ones coming in more abundantly toward the end.

The second run generally begins about June 7 to 10, and lasts until about July 1.

Generally have a summer run. Some years they may be plenty; and others not many. They are generally about 9 inches. They strike from the middle to the end of July and last about 1 month.

In the fall the big mackerel come back



from about the middle of October to middle of November. Preceding them may be smaller mackerel, 8 or 9 inches, which may last 2 or 3 weeks.

The size of the mackerel in the first spring run is about 15 inches, but some are larger, and may be larger this year.

Second run are about 11 inches, more or less.

Summer mackerel are about 9 inches, a few larger, and are mostly in poor condition.

In the spring they use only gill nets and traps.

For the first spring school they set gill nets 6 to 8 miles off Cross Island, and at other places along the coast about the same distance off shore.

Between here and Sambro they fish gill nets much more extensively than they do along the coast to the westward, in the proportion of 10 to 1.

The number of gill nets to a boat is generally 6 to 12, but some may use 18 to 20.

When the second run comes on they fish much closer in, from  $1/2$  to 1 mile, more or

less, off land.

This year they set some traps as early as May 20, but have caught nothing in them yet. Do not depend on getting the first run in traps but do the second.

The mackerel have struck in better at Prospect this year than Lunenburg.

In 1894, the spring run struck east of Cape Sable, and came right along shore. There were millions in our harbors.

They keep the traps out until about the middle or latter part of August. After that they are apt to be blown out. The traps are fished for herring and squid as well as mackerel.

Mackerel are very scarce this year. Has not caught over 65 in his gill nets. Nothing has been taken in the traps.

Used to catch more mackerel 15 years ago in one morning than they do now in a whole season, in gill nets. This does not include the traps which have done well for him 3 years out of 4.

There may be as many mackerel as ever; last year there seemed to be from May 18 to the

middle of June. Hard to judge anything about this.

Purse seines shy the mackerel. Last year was pleasant in the spring, the sea was smooth and purse seiners did well. This year, however, the weather has been bad.

Thinks purse seines scatter the mackerel, but do not decrease them.

Mackerel are a smarter and shyer fish than herring. The latter are not so easily disturbed. They are slower and more easily caught.

Lunenburg Bay has about 30 traps.

Mackerel enter Lunenburg Bay in the spring on the south side and pass out on the east side.

A. B. COLDWELL, COLLECTOR OF CUSTOMS,

LUNENBURG, N. S., MAY 30, 1895.

Interviewed by Wm. Wakeham and R. Rathbun  
(long hand).

In 1877, a pole trap was put in just inside of the Ovens, Fire Cove. It was kept there about 9 years. They had a man from Cape Sable Island to run it. The first year they had a good season, but succeeding years were not so good, and it was finally given up on account of the expense and labor of running it.

Some fresh mackerel were shipped from here to Yarmouth for Boston in 1894. This is done occasionally, but not often, and not in large quantities. There is only 1 steamer a week to Yarmouth, but a few may go by rail sometimes.

Thinks the presence of so many lobster pots in all the bays has had much to do with keeping the mackerel out. The foul bait, the presence of so many buoys, and lines, the general commotion in lifting, etc. Doesn't think purse seiners have had much effect; only

a drop in the bucket so far as causing a decrease, although they may frighten the mackerel somewhat. The bottom in the bays has been much changed, however, by some cause, and he thinks it has been in part due to the lobster pots. The kelp has been destroyed, and they always thought it proved an attraction to the mackerel.

Mr. Dore thought the kelp had been destroyed by sea urchins which were formerly very abundant in this bay. Now the urchins have disappeared, and the kelp is beginning to grow again.